Renewable energy

New wind and solar generation costs fall below existing coal plants

Estimates jeopardise Trump's hopes of reviving mining industry in US

New estimates show it can often be profitable for US generation companies to shut down working coal plants and replace their output with wind and solar power © Bloomberg

Ed Crooks in New York YESTERDAY

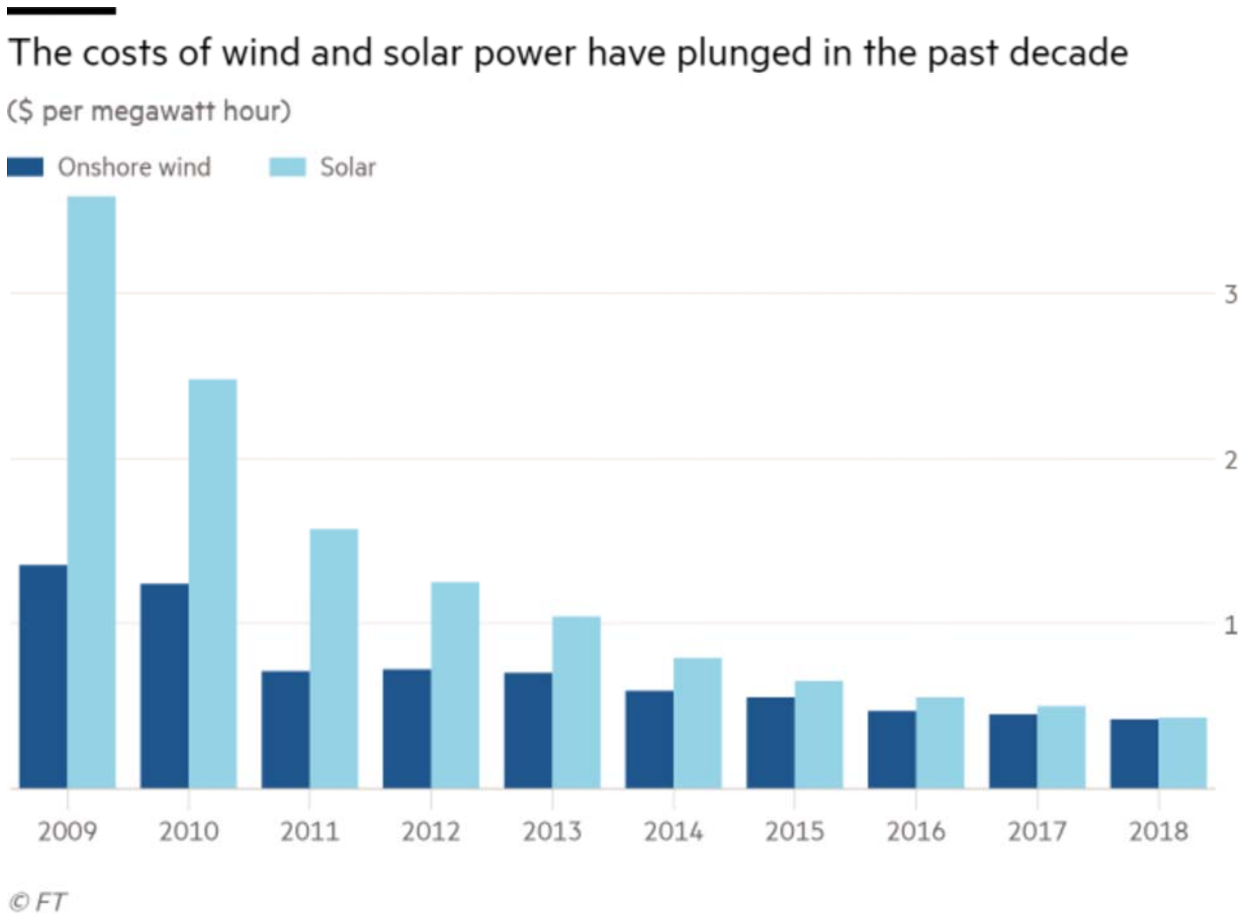
The cost of new wind and solar power generation has fallen below the cost of running existing coal-fired plants in many parts of the US, threatening to wreck President Donald Trump's hopes of reviving the mining industry.

New estimates published on Thursday by Lazard, the investment bank, show that it can often be profitable for US generation companies to shut working coal plants and replace their output with wind and solar power.

The calculations suggest that closures of coal-fired plants are likely to continue, eroding US demand for coal and jeopardising Mr Trump's ambition to "put our coal miners back to work".

The falling cost of renewable energy is adding to the pressure from cheap gas and stagnant demand for electricity, which have cut US coal power output by more than 40 per cent since 2007.

Retirements of US coal-fired plants are expected to hit a record high this year, and companies including FirstEnergy and American Electric Power have in the past few months announced further closures. Many of the plants being shuttered are reaching the end of their working lives, but even some relatively new capacity is being shut because it is no longer economically viable.



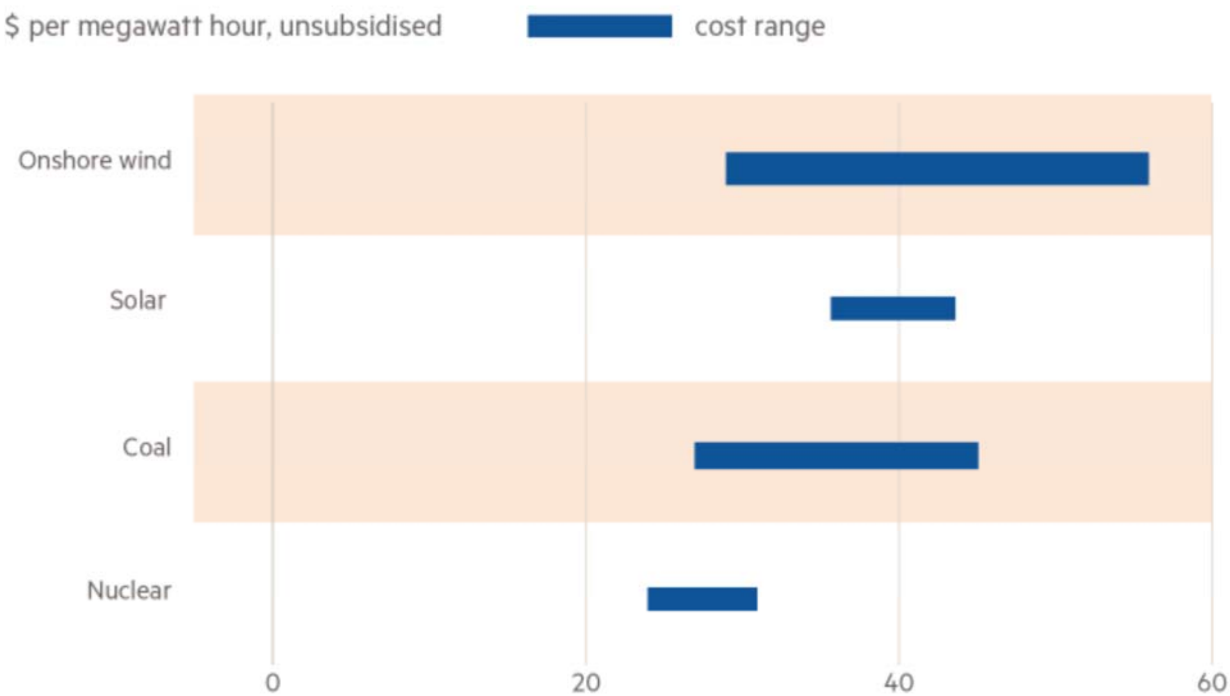
Vistra Energy said last year it was shutting coal plants in Texas including one that had brought its latest unit into service only in 2009.

According to Lazard, the all-in levelised cost of electricity from a new wind farm in the US is \$29-\$56 per megawatt hour before any subsidies — such as the federal Production Tax Credit, which is being phased out by 2024. The marginal cost of operating a coal plant is \$27-\$45 per MWh. So there are often times and places where building a wind farm even without any subsidy would make sense. Add in the PTC, which can cut the cost of wind power to as little as $14 per MWh, and the case becomes even stronger.

George Bilicic, head of power, energy and infrastructure at Lazard, said utilities could often make the case to regulators that it would be cheaper to shut coal-fired plants and replace them with renewables and energy efficiency improvements, delivering both higher returns for the companies and lower bills for customers.

Xcel Energy, the Minneapolis-based utility group, is one of the pioneers of this model, In August, the regulator in Colorado approved its plan to shut 660 megawatts of coal-fired capacity and replace it with 1,100MW of wind, 700MW of solar and 275MW of battery storage. The company said the plan would save about $200m for customers.

New wind and solar generation can cost less than existing coal plants



Source: Lazard
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Ben Fowke, Xcel's chief executive, said in a speech at the annual convention of the Edison Electric Institute, the industry group, in June: "I will tell you, it's not a matter of if we're going to retire our coal fleet in this nation, it's just a matter of when."

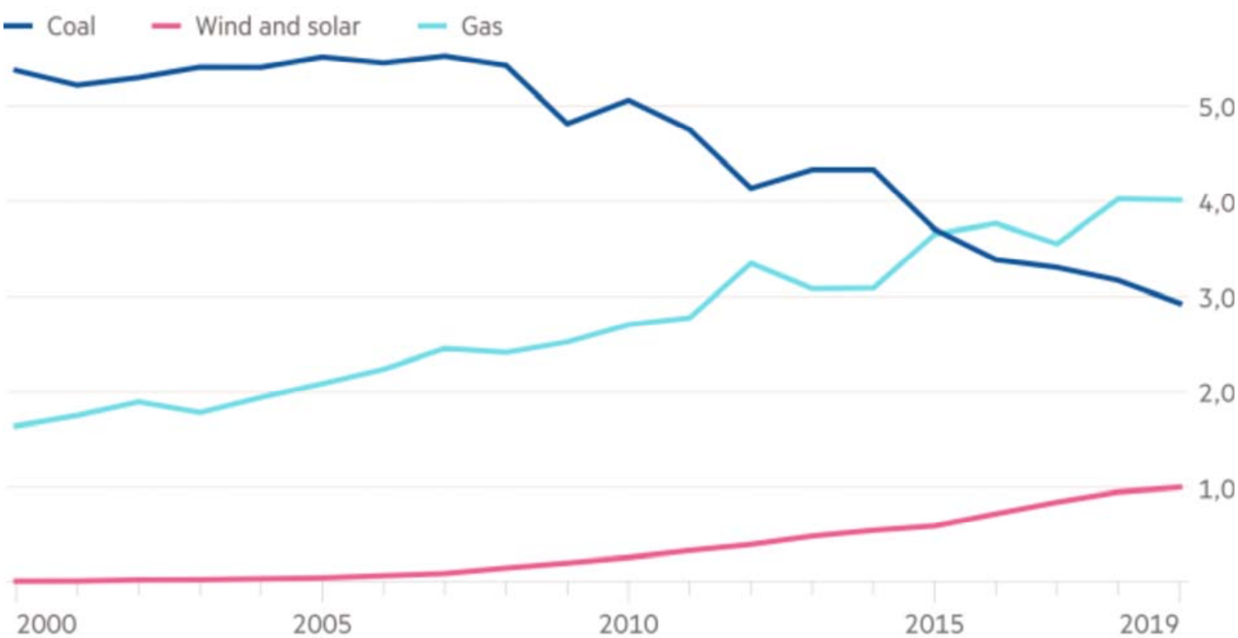
Other companies are putting more emphasis on energy efficiency. Public Service Enterprise Group, the New Jersey utility, in September proposed to its state regulator a $4bn six-year investment plan based principally on energy efficiency improvements, including financial incentives to buy more efficient appliances, smart thermostats and other equipment. The company closed its last two coal-fired plants in New Jersey last year.

Ralph Izzo, PSEG's chief executive, told the Financial Times that its customers' bills had dropped 30 per cent over the past 10 years, principally because of the plunge in the cost of gas caused by the shale revolution. Now gas prices had levelled off, he saw curbing power use would be the best way to reduce customers' bills, and to "decouple" the company's revenues from the number of megawatt hours it sold. "It really is a no-brainer," he said.

US coal production picked up last year, helped by strong exports. The industry employs about 2,100 more people than it did when Mr Trump took office, an increase of about 4 per cent.

As coal has declined in the US, gas and renewables have risen

Power generation, thousands of MWh / day



2018 and 2019 numbers are forecasts
Source: Energy Information Administration
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Output has been falling back again, however, and is expected to drop next year to close to its level in 2016, which was the lowest since the early 1980s. Westmoreland Coal, a Colorado-based mining company, last month filed for Chapter 11 bankruptcy protection with debts of about $1.4bn.

The Trump administration has been looking at ideas for subsidising coal and nuclear plants, on the grounds that the increasing reliance of US grids on gas and renewable energy exposes them to risks of blackouts in extreme conditions such as a period of severe cold weather. A first attempt launched last year was rejected by federal regulators, however, and although Mr Trump has alluded to a new plan, the administration has not yet published any formal proposals.

“There is a lot of smoke and not much fire,” said Seth Feaster of the Institute for Energy Economics and Financial Analysis, a think-tank that supports renewables.

“Policy is not easy to turn on a dime, even if you want to.”

Utilities are making investment decisions that could last for decades, he added, and are unlikely to change course based on a policy that could be abandoned if Mr Trump fails to win re-election in two years’ time.

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